REMARKS

I. Status of Claims

Claims 22-42 are pending in the application. Claim 22 is independent. Claims 23, 25-31, 33-35, 40, and 42 are currently amended.

Claims 23, 25-31, 33-35, 40, and 42 stand rejected under 35 U.S.C. 112, second paragraph, for allegedly not particularly pointing out and distinctly claiming the subject matter which the applicant regards as the invention.

Claims 22-35, 39, and 42 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Samani (USP 5,645,599) ("Samani").

Claims 22 and 40-41 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Senegas (WIPOPUB WO01/28442).

Claims 36-38 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Samani.

The Applicant respectfully requests reconsideration of these rejections in view of the foregoing amendments and the following remarks.

II. 35 USC 112, second paragraph, Rejections

The Applicant respectfully submits that the claims are amended to correct any perceived ambiguity and respectfully requests withdrawal of this objection.

III. Pending Claims

Claim 22, the only independent claim, stands rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Samani and Senegas.

The Applicant respectfully submits that claim 22 is patentable over the cited references at least because it recites an intervertebral support comprising, *inter alia*, "...an anterior portion suitable for being positioned in the space between the underlying and overlying ***laminae*** of two adjacent vertebrae, for restoring an anatomical intervertebral spacing, and a posterior portion comprising ***retaining means for preventing the support from migrating towards the anterior portion of the spine by pressing against the laminae.***"

As a preliminary matter, the Applicant respectfully submits that an analysis of the Samani and Senegas reveals that both references concern an ***inter-spinous*** implant, but not ***an inter-laminae*** support/implant as required by the invention of claim 22. Therefore, it is respectfully submitted that the Office Action is misinterpreting the two cited references and/or has misunderstood the invention of claim 22. Moreover, the retaining means (reference numeral 6 of Samani and reference numerals 6a, 6b of Senegas) that are disclosed in the cited references do not equate to the retaining means of the invention of claim 22 as alleged in the Office Action.

For example, with respect to Samani, this reference describes an ***inter-spinous*** implant 5 having a "U" shape, a central portion 5a (that is flexible), and two branches 5b that comprise two pairs of brackets 6 adapted for receiving ***spinous processes*** 2 (*See* column 3, lines 38 to 65, and Figures 2 and 5, of Samani).

Regarding Senegas, this reference describes an ***inter-spinous*** implant having an "X" shape, a spacer 2—in which two opposite notches 6a-6b are formed—suitable for receiving the two respective ***spinous processes*** 26a-26b (*See* column 3, lines 1 to 10, and Figures 1 to 4, of Senegas).

Thus, the two implants described in Samani and Senegas are arranged to be positioned between two adjacent ***spinous processes***, but not the inter laminae as with the support of claim 22. The positioning described in the cited references is commonly known to those having ordinary skill in the art, and ***it is respectfully submitted that this is exactly what the Applicant is purporting to address in the invention of claim 22***. More particularly, paragraphs [0002]-[0003] of the Applicant's specification as published state, with respect to spinous process implants, that:

> [0003] A prosthesis of a very similar design is described in European patent No. 0 322 334 to inventor Jean-Jacques Bronsard. One or more hollow resilient cylindrical pads are described therein as being ***interposed between the spinous processes*** of two adjacent vertebrae, and as being secured by means of a ligament passing through the pads. Other inter-process prostheses of a variety of shapes are described in French patents Nos. 2 717 675 and 2 775 183 to Dr. Jean Taylor. (emphasis added)
>
> [0004] Although those ***known devices provide results that are advantageous in terms of disk spacing, by being secured between spinous processes, they nevertheless***

> ***suffer from drawbacks that are not negligible since they do not provide any means for recovering the ability to support loads that are appropriate to physiological requirements. The absorption of load transmission between vertebrae has until now remained partial only.*** (emphasis added)

Again, in contrast to Samani and Senegas, the support of the invention of claim 22 is arranged to be positioned between ***two adjacent laminae***.

Having said that, the Applicant respectfully directs the Examiner's attention to the photos (i.e., photo 1, scheme 1, scheme 2, and scheme 3) provided in the Appendix.

Enclosed photo 1 is a good representation of the differences between the two kinds of implants in terms of positioning. That said, the Applicant respectfully submits that the retaining means disclosed in Samani and Senegas are arranged for maintaining a position of the implant within the ***spinous processes***. By contrast, the retaining means within the invention of claim 22 are arranged to ***prevent the support from migrating towards the anterior portion of the spine***.

In sum, the support of the invention of claim 22 differs from the implants of Samani and Senegas in at least the following ways: a) the support of the invention of claim 22 is apt to be inserted between two adjacent vertebrae ***in the space between the under and overlying laminae***, and b) the support of the invention of claim 22 comprises ***retaining means which are arranged to prevent the implant from migrating towards the anterior portion of the spine by pressing against the laminae***.

The photo marked 1, the photo marked scheme 1, and the photo marked scheme 2 in the appendix highlight both the structural and functional differences between the two kinds of implants (i.e., inter-laminae and spinous process).

Thus, the support of the invention of claim 22, that is arranged to be placed in that specific position and comprising the claimed retaining means, enables one ***to bring the support point to a posterior arc where the load is most important*** (*See* paragraph [0010] of the Applicant's specification as published), ***to restore and maintain satisfactory disk spacing, to provide better damping of the forces acting at this level, and to provide better relief for the inter-vertebral disk*** (*See* paragraph [0013] of the Applicant's specification as published).

Furthermore, as seen in scheme 3, this specific positioning between the two laminae and the retaining means creates two rotation points: one between the superior laminae and the top of

the anterior portion, and one between the inferior laminae and the bottom of the anterior portion. These two points permit the support ***to provide improved articular mobility with full control over flexing, extension, and rotation of the spine*** (*See* paragraph [0007] of the Applicant's specification as published).

It also respectfully submitted that the surgical operation to position the support of the invention of claim 22 is quite simple and not too invasive (*See* paragraphs [0008] and [0016] of the Applicant's specification as published). Using certain embodiments of the present invention, one can obtain a support providing better relief for the inter-vertebral disk, as well as improving articular mobility, and restoring and maintaining a satisfactory disk spacing. Also, the support of the invention of claim 22 is also easily positionable by the surgeon during the operation.

That being said, the Applicant respectfully submits that nothing in Samani and/or Senegas describes or teaches an implant that can be positioned between the laminae. Thus, lacking any teaching and/or suggestion of "an anterior portion suitable for being positioned in the space between the underlying and overlying ***laminae*** of two adjacent vertebrae, for restoring an anatomical intervertebral spacing, and a posterior portion comprising ***retaining means for preventing the support from migrating towards the anterior portion of the spine by pressing against the laminae***..." the cited references fail to anticipate the invention of claim 22. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Further, the other cited references do not address the deficiencies of Samani and Senegas. As discussed in *KSR Int'l Co. v. Teleflex, et al.*, No. 04-1350, (U.S. Apr. 30, 2007), the Applicant respectfully submits that it remains necessary to identify the reason why a person of ordinary skill in the art would have been prompted to combine alleged prior art elements in the manner as claimed by the Applicant. Obviousness cannot be sustained on mere conclusory statements.

As can be seen in photo 1, the position of the inter-spinous implant is dependant of the anatomical form of the vertebrae and of the spines. This means that if the surgeon wants to place the inter-spinous implant at a closer position of the vertebra (in order to have good three-dimensional mobility), the surgeon would have to crop the spines. By cropping the spines, the implant would not be correctly positioned between the two adjacent laminae. Moreover, even if the surgeon adapted the implant and managed to position the inter-spinous implant between the

two adjacent laminae (i.e., instead of positioning it between the two adjacent spinous processes as is designed), the implant would come in contact with the anterior portion of the spine, and eventually touch the medullar canal. In this case, the patient could suffer from partial or total paralysis. Thus, it would be necessary to conceive retaining means to prevent the implant from migrating towards the anterior portion of the spines. It is respectfully submitted that nothing in the references teaches retaining means capable of such a preventing function.

Indeed, the retaining means disclosed in the cited references are arranged for maintaining in position the implant within the spinous processes. Thus, for at least these reasons, one having ordinary skill in the art also would not modify the implants of Samani and/or Senegas in the manner as claimed by the Applicant. That is, the modifications required to arrive at the invention of claim 22 are not obvious to one having ordinary skill in the art (starting from an inter-spinous implant), particularly the Applicant's solution for restoring articular mobility and preventing the support from migrating towards the anterior portions of the spine.

Accordingly, the Applicant respectfully submits that, for at least these reasons, claim 22 and its dependent claims are patentable over the cited references.

IV. Conclusion

The Applicant respectfully submits that the present application is in all aspects in allowable condition, and earnestly solicits favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned at (202) 220-4420 to discuss any matter concerning this application. **The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.**

Respectfully submitted,

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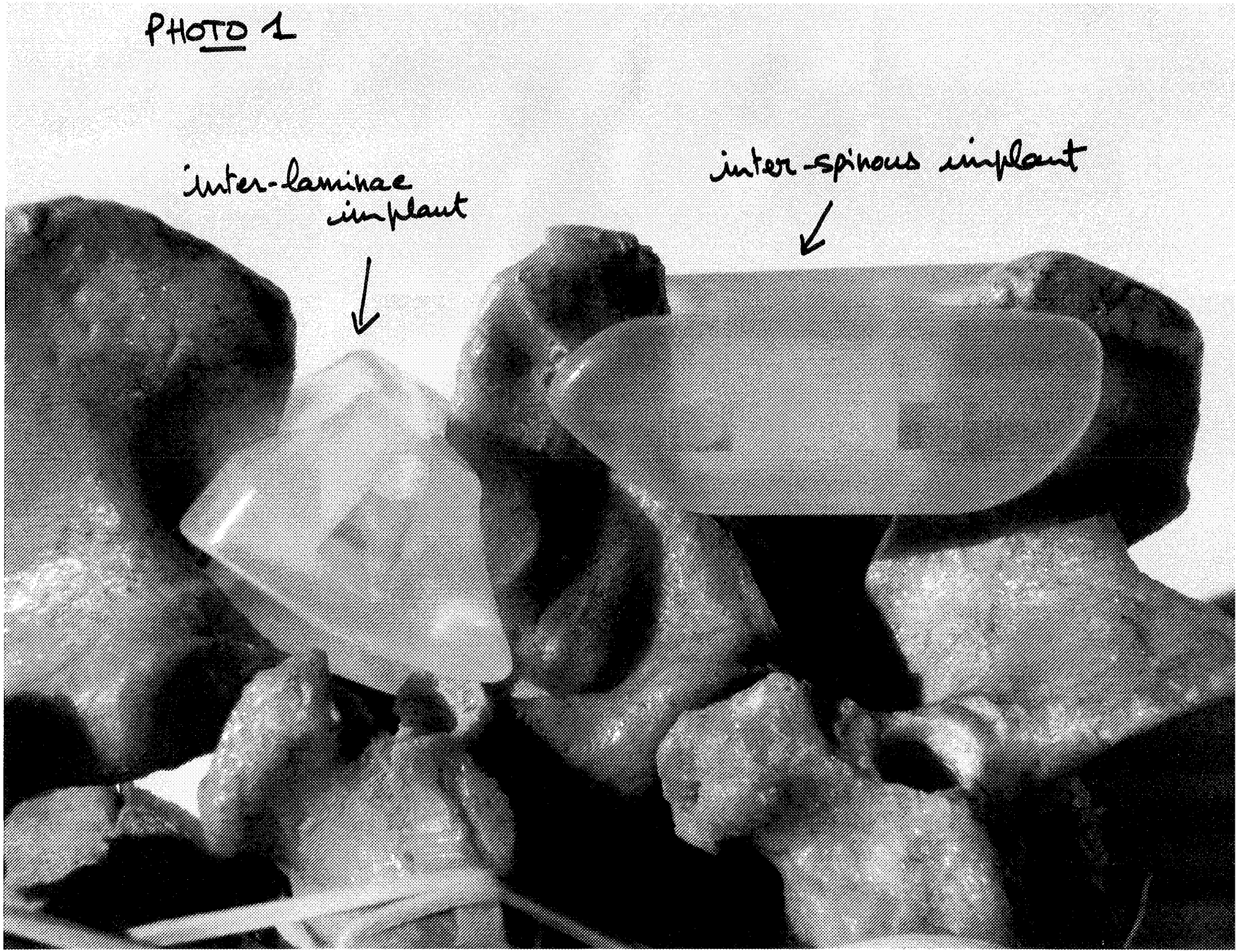
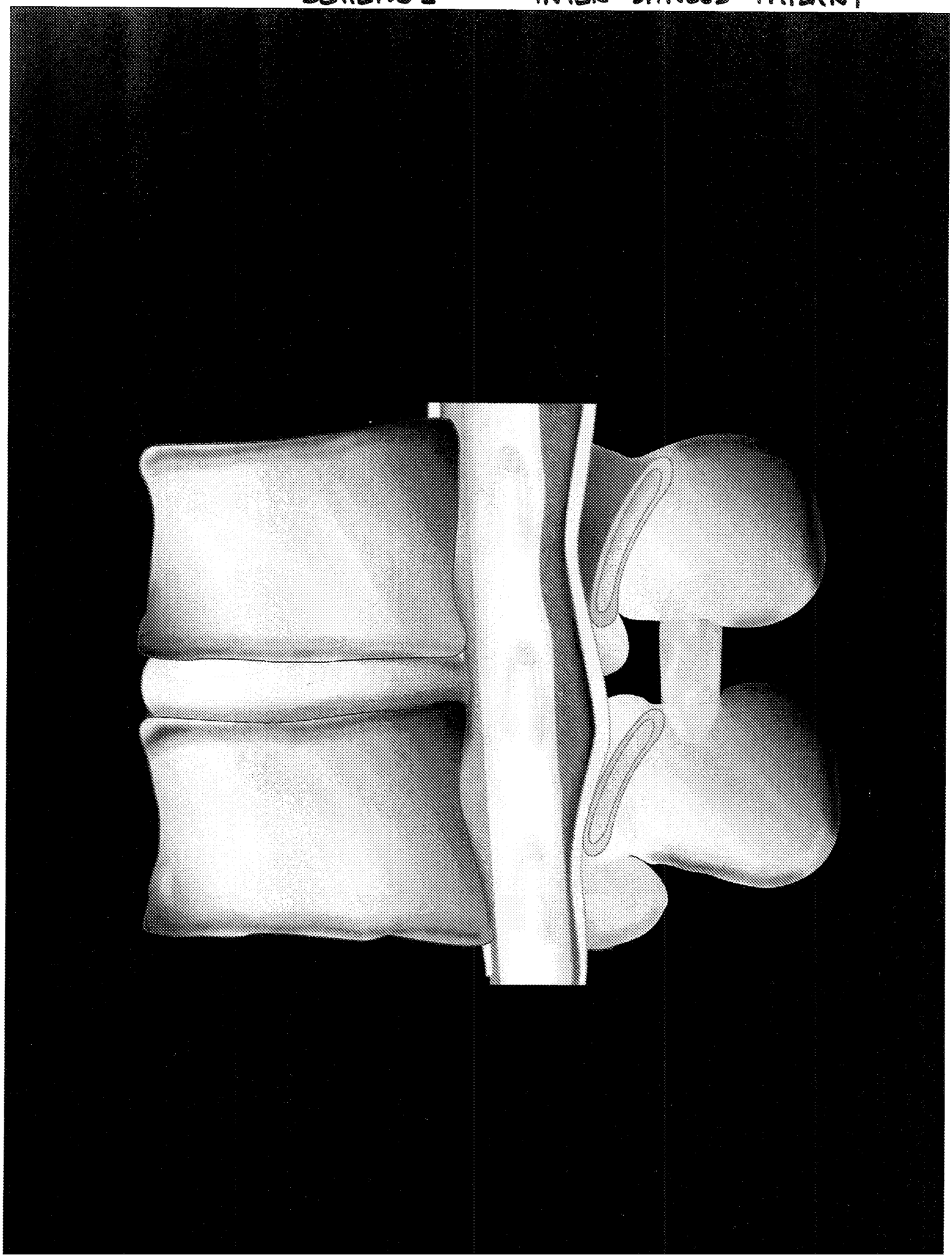
APPENDIX

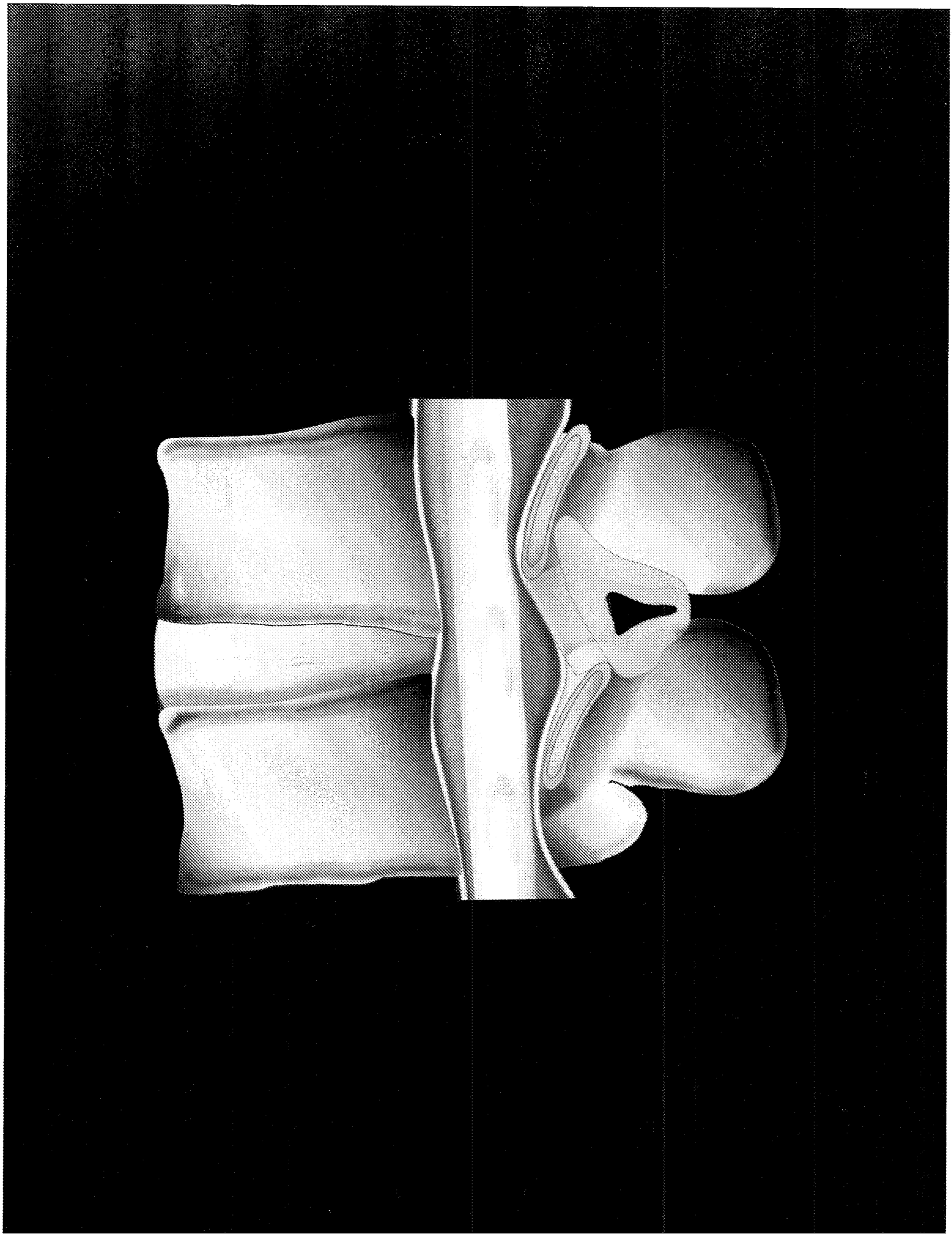
PHOTO 1



SCHEME 1 INTER-SPINOUS IMPLANT



SCHEME 2 INTER-LAMINAE IMPLANT



SCHEME 3